2d Marine Aircraft Wing
Aviation Logistics Ship
T-AVB 3 SS Wright

Overview

- What is T-AVB.
- T-AVB Description.
- Why we have the T-AVB.
- Current T-AVB Alteration (T-AVB Alts).
- 2dMAW Exercise and Planning.

What Does T-AVB Stand For??

- No !!!!!! not a training Harrier
- “This Ain’t Very Bright”
- “The Avionic’s Barge”

Neither of these statements are close

What Does T-AVB Stand For??

- T Civilian Operated (MSC)
- A
- V
- B

Aviation Logistics Series of Vessel

- Bluf: Civilian Operated-Aviation Logistics Ship

T-AVB Description

Platform

Description

Displacement	23,800 lt
Speed (80% power)	18 kts
Length	602 ft
Draft	29.8 ft
Crew	41 (Commercial U.S. Merchant)
Troop Lift	25 Officer/SNCO; 300 Enlisted
Cargo Cube	
• Operational Mode	300* MFs & 52 Access Modules
• Transport Mode (TEUs)	688* 8'x8'x20' Containers
Flight Deck	(Level 2/Class 3) all helicopters (*Notional) including CH-53E except CH-47 and MV-22 (CH-53K is TBD)

Program Status

- Provide a dedicated sea-lift / sea base for the rapid movement of the aviation intermediate level (I-level) maintenance capability to sustain fixed and rotary-wing aircraft.
- Provide strategic lift in a conventional container or Roll-On/Roll-Off (RO/RO) configuration
- Provides selected, sea-based expeditionary logistics support to a MAGTF ACE.
- Maintained in five day Reduced Operating Status-5 (ROS-5) by the Maritime Administration (MARAD), a component of the Department of Transportation (ADCON and OPCON). Upon Activation – OpCon transfers to Military Sealift Command (MSC) (ADCON stays MARAD).

Issues

- T-AVB usable life expires 2019 (Curtiss) and 2020 (Wright).
- RT CASS Electrical requirement.
- V-22 Flight Deck Certification:
  - Deck heating analysis.
  - Helo Control station re-location.
  - Beacon Light removal or re-location.
- Satellite Communication suite upgrades.
- Force protection:
  - Additional Gun Mounts.

Why Do We Have the T-AVB

- In August 1979, the Secretary of Defense initiated the concept of the Maritime Pre-positioning Ships (MPS) program. The MPS concept is based upon the need to provide the National Command Authority with the capability to respond rapidly to a crisis situation with significant combat power capable of sustaining operations for **30 days**.
  - Problem soon discovered:
    - An inherent flaw in the sustainability of the Aviation Combat Element (ACE).

Why Do We Have the T-AVB cont

- Solution #1:
  - 1983 Program Objective Memorandum's (POM) attention was focused on acquisition of a 30 day allowance of aircraft spare parts to be pre-positioned with the MPS flotillas as a mobility enhancement initiative. This option would provide for a "remove and replace" concept of aircraft parts estimated to cost roughly **1.2 BILLION dollars** in 1983 dollars. Today, it would cost over **2.6 BILLION**

- Solution #2:
  - In March 1982, the Commandant of the Marine Corps proposed a different concept
    - Marine Corps aviation be able to rapidly deploy both its aircraft and the associated IMA
    - Not rely on Strategic Airlift
    - Be able to sustain combat operations for 30 days

Why Do We Have the T-AVB cont

- 1.2 billion was unattainable.
  - costs would increase incrementally yearly.
- Introduction of the T-AVB.
  - Combines dedicated fast sealift (vice airlift).
  - Moves the IMA:
    - People, Support Equipment, Parts & Mobile Facilities
  - Allows the IMA to be functional enroute and on station.
  - Provides **30 days+** of sustainment.
  - Does not rely on Host Nation Agreement.

From This

Commissioned the Mormacsun Later
sold became SS Young America,
procured by DOD became USNS Wright
T-AVB 3

To This

And This

And This

T-AVB Alterations (T-AVB Alt)

- RT CASS
- 500 KW Generator
- NTCSS Network Hub replacement
- Force Protection
  - Gun Mounts
  - Non Lethal deterrence methods

All T-AVB Alt's must provide concurrence from 2d & 3d MAW, I & II MEF, and both MARFORS

Pending Ship Alterations

- RT CASS Power Input requirement.
  - Additional 200 amp outlet requirments, TAVB Alt Submitted COMMARFORCOM dtg 171819Z Dec 2010,
    - Message Synopsis:
      - CASS Marine Corps wide is being replaced by RT CASS.
      - CASS station came configured in double wide MFs which restrict location and positioning while onboard the T-AVB.
      - RT CASS configured in a single turnkey style MF, not limited to environmental and placement restriction as a double wide.
      - Current design in each Hold area onboard are limited number of 200 amp outlet power box.
      - Requirement to upgrade each hold area with additional 200 amp power box to accommodate additional RT CASS.

Pending Ship Alterations cont

- Increased IMA Power Requirements
  - Additional 500KW generator COMMARFORCOM 262307Z Jul 2005
    - Message Synopsis:
      - Each ship is designed to supply the IMA with 1600 amps max (Curtiss) and 1800 amps max (Wright).
      - Hydraulics T-10 bench on startup and cycling draw 1200 amps.
      - Current design of ship's power grid can not support.
        - Initial assessment (**not formal**), to cost prohibitive to alter ship's current grid to accommodate.
      - Add additional 500 kw generator to support.

Pending Ship Alterations cont

- NTCSS Hubs
  - NETWORK 3 COM 12 PORT HUB TO SWITCH REPLACEMENT COMMARFORCOM 091637Z Feb 2011
    - Message Synopsis:
      - Currently each ship is outfitted to connect the MALS to the network grid via network 3 Com hubs.
      - Hubs are incapable of transmitting multiple data at a time.
      - Cause serious degradation of network speed and ability to operate.
      - Security issues.
      - Replace hubs with DOD network compatible switches.

Pending Ship Alterations cont

- Force Protection
  - Additional Gun Mounts, COMMARFORCOM 071215Z Oct 2010
    - Message Synopsis:
      - Increased threats identified by Defense Intelligence Agency; Military targets .
      - Currently each ship is outfitted with six (6) gun mount positions; four (4) M2 (.50cal) & two (2) M240G.
      - Force Protection Study.
      - Add two (2) M240G gun mounts.

Pending Ship Alterations cont

- Force Protection
  - Long Range Accoustic Device (LRAD), I MEF 112153Z Oct 2005.
    - Message Synopsis:
      - Force Protection is the responsibility of the COT while onboard.
      - Lack of positive off ship non lethal methods to deter small vessel from ship's security zone.
      - Install two (2) LRAD devices on each ship.

Exercise and Planning

- FY-11 Training
- FY-12 Exercise and Training

Exercise and Training

- T-AVB activation exercises are done on a biennial basis; Curtiss (3dMAW) odd years, Wright (2dMAW) Even years.
  - All 2dMAW Activation, Exercises and training are TEEP'd events.
    - FY-11 Training Plan, dtg CG 2dMAW 221946Z Oct 2010:

Date	Event	Result
14-20 Nov 2010	Comm training	Completed
6-12 Mar 2011	Load/Comm training	Completed
21-27 Jun 2011	Comm training	Cancelled
21-27 Aug 2011	Load/Comm training	

Exercise and Training cont

- **Proposed** FY-12 training plan, message currently in draft format pending 2dMAW G3 Approval:

Date	Event
4-10 Dec 2011	Comm training
8 Jan – 20 Feb 2012	Activation Exercise, Bold Alligator
10-16 Jun 2012	Comm training
15-27 Aug 2012	Load/Comm training

- Currently 2dMAW G3 is considering the T-AVB as a Theatre Security Cooperation Platform to support 2dMAW aircraft in Belize.

Why do we Train ????

- Validate AVLOG and maintenance support to a strategically agile, scalable and tactically flexible MAGTF
  - Operational Maneuvers From the Sea (OMFTS)
  - Ship-to-Objective Maneuver (STOM)
  - Other Expeditionary Operations (OEO)
  - Distributed Operations (DO)
- Produce cadre of Marines trained in full spectrum of T-AVB load operations
- Maintain proficiency in deploying/employing and operating aboard the T-AVB ships
- Exercise all shipboard upgrades
- Exercise full Satellite Communication operations
- MARLOGs (Air/Land/Sea)
  - Identify Logistical choke points
  - Source to destination visibility tracking
- Exercise shipboard loading software (TALPS)
- Movement of Mobile Facilities and ancillary equipment to the SPOE/D
- Develop and exercise of (AT/FP) Protection plan
- Exercise MEDEVAC Plan
- Exercise limited Chemical/Biological response plan

Questions?